

U.S. National Stage

Amendments to the Specification:

On page 1, prior to the first paragraph which begins on line 3, please insert the following:

FIELD OF THE INVENTION

Please replace the paragraph which begins on page 1, line 3 and which ends on page 2, line 4, with the following rewritten paragraph:

~~The present invention relates to a pressure sensor.~~

BACKGROUND OF THE INVENTION

"Pressure sensors" in the sense used herein includes absolute pressure sensors and relative pressure sensors, the first of which, measures, for a medium being measured, absolute pressure compared with vacuum, and the second, the difference between pressure in a medium being measured and the current atmospheric pressure. A pressure sensor includes, in general, a pressure measuring cell comprised of a base plate and a measuring membrane, or diaphragm, with a pressure chamber being formed between the measuring membrane and the base plate. The pressure-dependent deformation of the measuring membrane is a measure for the pressure, and such is converted in suitable manner into an electrical quantity, or primary signal. For conditioning the primary signal, or electrical quantity, usually there is an electronic circuit, for example a hybrid circuit, arranged preferably in the immediate vicinity of the primary signal source, for example on the rear face of the base plate, the face not containing the pressure chamber. The electronic circuit, it is true, is arranged in a sensor housing, for protecting it from dirt, etc., but is still exposed to the air of the environment. In such case, especially under realistic operating conditions fluctuating air humidity proves to be a difficultly manageable source of malfunctions, since it can lead to, among others, changes in the properties of the components of the electric circuit and even of the connecting lines and, consequently, to corruptions of the measurement signals. These corruptions are, it is true, small and acceptable for

U.S. National Stage

standard applications, but, in the case of precision sensors, something must be done about them. Thus, there are efforts to minimize the influences of moisture by encapsulation of the electric circuit. Unpublished International Patent Application No. PCT/EP02/14787 of the present assignee discloses, to this end, a ceramic, capacitive, relative pressure sensor having a ceramic pot connected to the rear face of the pressure sensor, in order to form a chamber in which the hybrid circuit enclosed in the chamber is protected from the influences of moisture. This concept is, however, capable of improvement for the following reasons.

On page 2, prior to the paragraph which begins on line 21, please insert the following:

SUMMARY OF THE INVENTION

Please delete the paragraph which appears on line 26.

On page 6, prior to the paragraph which begins on line 5, please insert the following:

BRIEF DESCRIPTION OF THE DRAWING

On page 6, prior to the paragraph which begins on line 11, please insert the following:

DESCRIPTION OF THE PREFERRED EMBODIMENT